

MEMORANDUM

To: John Kirlin, Delta Vision
From: Stephen Hatchett
Subject: Additional comments on Draft Strategic Plan
Date: July, 14, 2008

Following our conference call on Friday, I reviewed in more detail the draft's specific actions related to agricultural water use and supply. Attached are my comments and suggestions on four actions: 7.1, 7.4, 8.7, 9.2, and 9.6. Most are suggested wording changes to clarify or add more specifics to an action.

I have also referenced these suggestions in the table that Roger has provided.

Action 7.1: Improve collection of baseline water diversion and use data.

The rationale and the list of specific actions presented in the second draft of the strategy are good. I have the following suggestions and observations regarding this Action:

- Amend the second bullet to include better crop water use and irrigation practices data. For example: “Improve local, regional and statewide collection and dissemination of agricultural land-use data. Improve and standardize the methods for estimating crop evapotranspiration and applied water. DWR should work with local districts and Counties to develop and implement periodic (not greater than five-year intervals) irrigation system surveys.”
- Add another bullet: “Develop and make available an improved common set of data on agricultural land use and water use. This data set should be used consistently across all water-related planning and modeling activities of the State. The information should be made available to the public at a level of detail useful for understanding regional conditions and trends but consistent with privacy and non-disclosure requirements.”
- Fourth bullet now reads: “Require DWR to expand ...with local entities.” Expand may not be a strong enough word – I recommend adding language requiring that DWR complete its coverage of all groundwater sub-basins within the Central Valley (and perhaps elsewhere). Legislative action may be needed to overcome legal and budgetary obstacles.
- There was much discussion during Calfed’s Panel on Appropriate Agricultural Water Measurement as to whether agricultural districts should improve farm gate delivery measurement and reporting. The Panel chose not to require across-the-board improvement and reporting, but rather to tailor the cost and accuracy of delivery measurement to the circumstances. So, the Panel’s conclusion is consistent with no specific action here, but you may hear stronger recommendations in other comments you receive. The Panel’s recommendations can serve as a reference.
- See my comment on groundwater modeling and usage estimation under 8.7 below.

Action 7.4: Increase the percentage of agricultural lands irrigated with highly efficient technology and management practices.

This action is straightforward but needs some broadening to encompass different crops and conditions. Some crops (e.g., rice) are not amenable to drip irrigation at all. Other crops perhaps could use drip irrigation, but other kinds of irrigation improvements could be much more cost-effective. Also, it might be useful to acknowledge in the text that, in some areas, the return flow from some fields is used as a water source for other fields.

- Modify the rationale to say, “Drip irrigation systems are currently the state-of-the-art technology for achieving this goal on permanent crops and some row crops.”

- In the first and second bullet: modify to say, “reduce or eliminate return flows to the surface water system”. (Huge improvements can be made by cutting run lengths, recycling tailwater, cascading tailwater, etc., but these will not totally eliminate tailwater - why make perfect the enemy of the good?)
- (Note that I suggested adding an irrigation system survey to Action 7.1 so that this Action’s performance can be tracked.)
- Some districts will require system delivery improvements to support on-farm water application methods that reduce tailwater. Agricultural water conservation is a huge topic with large savings potential, so I would not recommend that the specific actions focus solely on funding drip and micro-sprinkler systems.

Action 8.7: Institute comprehensive basin management planning to address the availability, quality, and managed use of regional groundwater resources.

- Lack of reliable information on groundwater use and conditions are, in my opinion, perhaps the single greatest impediment to effective water management in the Central Valley. Unmonitored groundwater use creates conflicts between local agencies, and complicates their ability to manage groundwater storage and conjunctive use facilities. Also, individual pumpers do not consider the short- and long-term costs they impose on others. The common property nature of unregulated pumping limits agricultural users’ willingness to pay for transfers, storage, and conveyance projects. Given the politics, it may not be practical to recommend monitoring and control of individual wells. However, DWR and local agencies could be directed to cooperate to provide improved groundwater modeling and a more accurate estimate of total annual groundwater use by sub-basin.
- The last specific action bullet refers to Action 2.1 – should read 7.1.

Action 9.2: Over time, shift export diversion timing to wetter periods (both within and between years) while providing sufficient reliability for regions reliant on water exported from the Delta watershed

My main comment here is to note that the text and specific actions set “long-term average total diversions equivalent to quantities seen during the 1990’s” as the apparent water export target. I had not seen this as the quantified target in the final Delta Vision document or elsewhere (maybe I missed it), and it seems like an important enough concept to elevate above a specific action.

Action 9.6: Support expedited completion of the CALFED surface storage investigations and implement the storage options that optimize the capture of wet period flows.

- Is the DV policy recommendation to build new surface storage? That is how this action currently reads. Perhaps it could instead read, “...implement the feasible

storage options...”, which is more consistent with the words used in the rationale and specific actions.

- What does “optimize” mean in this action? It seems premature to recommend maximizing or even significantly increasing the capture of wet winter flows, at least until some further consideration and analysis of the feasibility and impacts.